

**REMARKS:**

This amendment accompanies the filing of a request for continued examination (RCE) in response to the final office action mailed February 24, 2005. Applicant respectfully requests that this amendment be entered and the following remarks be fully considered by the examiner.

Applicant notes with appreciation that the objection to the use of certain trademark(s), the rejection under 35 USC 112 to claim 1, and the rejections under 35 USC 101 to claims 1 and 22 are withdrawn in view of the last response filed by Applicant.

**Claim Rejections 35 USC §103**

The Examiner has rejected Claims 1-6, 12-14, 16, 19, 20, 22-29, and 33 under 35 U.S.C. 103(a) as being unpatentable over US Pat. 5,943,497 (Bohrer et al, hereinafter called Bohrer) in view of US Pat. 6,438,743 (Boehm et al, hereinafter called Boehm). Claims 7-11, 15, 17, 18 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. 5,943,497 (Bohrer et al, hereinafter called Bohrer) in view of US Pat. 6,446,188 to Henderson et al. Applicant respectfully traverses these rejections of the claims in light of the amendments to the claims.

The claims have been amended to more clearly recite the claimed invention. The invention provides for the use of run-time caching, thereby allowing an object-oriented application to create, populate and manage one or more caches while the application is running. The application interacts with the cache through cache objects and cacheable factory objects. A cache object is created by a cache factory object and subsequently configured by the application. The application may then assign one or more factory objects to a cache encapsulated by the cache object. In this way, the application may use one or more caches associated with one or more factory objects of the application in order to provide fast access to objects associated with the application. Caches may be shared across multiple factories.

The cache objects and cacheable factory objects interact with the application to provide a transparent interface between the application, the database and the cache such that the application does not need to deal with how objects are retrieved from or stored in the cache. Also, the use of cache objects and cache factory objects encapsulate the cache so that during run-time operation the cache may be manipulated. Objects may be added, removed or located within the cache and organized so that the correspondence between the accuracy of these objects relative to the database from which they came is established.

Applicant respectfully submits that neither the Bohrer et al. nor the Boehm reference, whether considered singly or in combination, obviate the claimed invention. Neither of these references are capable of run-time configurable caching - adding a cache to one or more object factories at run-time – as is recited in the claims. In Bohrer et al, caching is not discussed. A reading of Bohrer shows that there is no teaching, suggestion or anticipation of run-time configurable caching of factory objects. In fact, the Applicant has found no mention in Bohrer of run-time configurable caching of factory objects, component factories, or even run-time configurable caching. Bohrer does teach the ability to replace configuration data while an object oriented application is running, thereby allowing a user to create an object while the application is running (summary, col. 6, lines 52-56). But the Applicant notes that methods and structures for creating an object during run-time has not been related by Bohrer to methods and apparatus for creating and manipulating cache memory during run-time. And, significantly, Examiner has not stated with particularity where such teaching occurs.

The Examiner is kindly directed to col. 6, lines 52-56, of Bohrer that states, “The disclosed embodiments avoid the difficulties with working with existing OO programs (e.g., frameworks) by allowing data administrator control over the modification of configuration data without having to change the whole program.” So, this reading of Bohrer gives a user external control over an OO program without having to re-compile changes to the program; this is not related to Applicant’s claimed invention. Furthermore, a reading of col. 6, lines 52-56 actually **teaches away** from Applicant’s

claim 1, since Bohrer teaches how to "avoid the difficulties with working with existing OO programs (e.g., frameworks)". Since Factories are often part of frameworks in the art, and the invention of Bohrer is directed to a mechanism to avoid frameworks, it is not considered analogous art.

Rather, this reference is concerned with changing or creating different types of factories and class substitution/redefinition. Switching classes of factories, not instance, is taught in this reference. In the present invention, instances of an object are all of the same class. Bohrer et al., conversely, over time would have different definitions of what fields exist in an Instance A. It would create different definitions of instance A to swap out at run-time.

In Boehm et al., no assignment of caches to factories is taught. This assignment is inherent in the system of Boehm et al. at start-up. With reference to the Summary of Boehm and Figures 2 and 4, Boehm teaches a method and apparatus for creating a software application and has **no relevance** to how said software application manages it's cache using objects or otherwise. **In fact, the object files referred to in the Boehm reference are only the files produced using a program configuration tool that compiles source files to create object files. A reading of Boehm finds no mention of object oriented programming principles whatsoever. The object files of Boehm are not objects in the OO sense.** And, significantly, Examiner has not stated with particularity where such teaching occurs.

Applicant also notes that the following elements of Applicant's claim 1, and analogous elements of claim 22, are not taught, suggest, anticipated or obviated by the Bohrer et al. reference and the Boehm et al. reference:

- the application associating a factory object of the plurality of factory objects with the cache object; and

- the factory object and the cache object cooperatively operating to manipulate one or more objects contained in the plurality of cache objects in response to a request from the application.

There is no teaching in Bohrer et al. of such an assignment of a factory object to a cache object, or of a factory object and cache object working together to manipulate (i.e. add, remove, find, etc.) objects in the cache in response to a request from the application.

The examiner refers to col. 6, lines 46-50. **However, a reading of Bohrer only indicates the use of a cache (not a cache object) to access configuration data objects.** There is no teaching, suggestion, or obviation in Bohrer of the use of cache objects. In fact, a reading of Col 6, lines 46-50 indicates that there is a single cache which is accessed using the namingService object. *Since there is no teaching of the use of cache objects or cacheable factory objects, there certainly cannot be any teaching or suggestion of any kind of mapping or associating between cache objects and factory objects.* Therefore, Applicant asserts that Bohrer does not teach, suggest, anticipate or otherwise obviate such an assignment and the examiner has not stated with particularity where such teaching occurs.

Reconsideration and allowance of claims 1 and 22 is hereby requested at the Examiner's earliest convenience. The remaining claims depend from these claims.

**With regard to the remaining claims,** Applicant submits that these claims are at least patentable because these claims depend from claims 1 and 22, respectively, which has been shown to be patentable. Moreover, it is noted that the use of the Henderson et al. reference in combination with the Bohrer reference fails to overcome the deficiencies of the Bohrer reference with regard to claims 7-11, 15, 17, 18, and 30-32. Although additional arguments could be made for the patentability of claims 2-21 and 23-33, as well as for new claims 34-36, such arguments are believed unnecessary in view of the above discussion and the changes to the claims. The undersigned wishes to make it clear that not making such arguments at this time should not be construed as a concession or admission to any statement in the Office Action.

For the foregoing reasons, Applicant respectfully submits that the current claims are not obvious in light of the Bohrer et al., Boehm et al., and Henderson et al references, whether considered in combination as per the rejection or singly.

Because the combination of the Bohrer reference with the Boehm reference does not teach every element of the claims as currently amended, the rejections of the claims are unsupported by the art and should be withdrawn. Reconsideration and allowance of the claims is hereby requested at the Examiner's earliest convenience.

Please contact the undersigned if there are any questions regarding this response or application.

Respectfully submitted,



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